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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09:917,289	07:27/2001	Martin W. Frash	55892 (71850)	8099

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EDWARDS & ANGELL, LLP
P.O. BOX 9169
BOSTON, MA 02209

EXAMINER

ELKASSABGI, HEBA

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,289

Applicant(s)

FRASH ET AL.

Examiner

Heba Elkassabgi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/06/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16,28-36 is/are pending in the application.
- 4a) Of the above claim(s) 17-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-16 and 28-34 is/are allowed.
- 6) ☒ Claim(s) 1-5,9,10,35 and 36 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,5, 9-10,35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U.S. Patent 6320288) and further in view of Muller (U.S. Patent 3912956).

Suzuki et al. Illustrates in Figures 1 and 2 a motor having a stator (21 and 22) with a rotor (R) having an end that is proximate the stator (21 and 22), and that the rotor (R) rotates about an axis (A). Furthermore, the rotor (R) has a magnet (9) that is positioned along a length of the rotor (R) and a proximal end of the magnet is positioned near the stator (21 and 22), in which a shield ring (30) covers a proximal end of the magnet (9). However, Suzuki et al. does not disclose a shield plat.

Muller illustrates in Figure 1 a thermally conductive stator plate (1) that is within a permanent magnet motor having two flat stator coils (13 and 14) that are countersunk within the plate. The stator plate is located proximate the rotor (11) and that the rotor rotates about an axis, in order to rigidify the stator plate. Furthermore, the motor having two rotors in which a first rotor (10) being positioned radially inside the second rotor

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section (9) and that the second rotor section is relative to the axis and that a magnet is attached the second rotor section (9).

It would have been obvious to one of ordinary skill in the art to combine the permanent magnet motor structure of Suzuki et al. with the stator plate of Muller in order rigidify the stator plate within the housing of the motor

In regards to Claim 5, it would have been obvious to one of ordinary skill in the art at the time the invention was made to choose a suitable material for the shield, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

2. Claims 2, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U. S. Patent 6320288) and Hill (U.S. Patent 6369483).

Suzuki et al. Illustrates in Figures 1 and 2 a motor having a stator (21 and 22) with a rotor (R) having an end that is proximate the stator (21 and 22), and that the rotor (R) rotates about an axis (A). Furthermore, the rotor (R) has a magnet (9) that is positioned along a length of the rotor (R) and a proximal end of the magnet is positioned near the stator (21 and 22), in which a shield ring (30) covers a proximal end of the

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magnet (9). However, Suzuki et al. does not disclose the coil structure and the stator plate.

Muller illustrates in Figure 1 a thermally conductive stator plate (1) that is within a permanent magnet motor having two flat stator coils (13 and 14) that are countersunk within the plate. The stator plate is located proximate the rotor (11) and that the rotor rotates about an axis, in order to rigidify the stator plate.

Hill discloses in Figures 1-5, a rotor (11) that extends around the coils and stator (14), in which the stator poles (1) have a grooves (3 and 7) for receiving and arranging a coil (5) in the grooves (3 and 7), the grooves of the stator poles is to track the conductor wire in a defined manner.

It would have been obvious to combine the motor structure of Suzuki et al. with the feature of the grooves about the stator poles and the coil that are disclosed in Hill, so that the conductor wire is tracked in a defined manner and with the stator plate of Muller in order rigidify the stator plate within the housing of the motor

Allowable Subject Matter

Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In regards to claim 6 prior art does not disclose a shield that is comprises of a cup shape that extends around the proximal end of the magnet. In regards to claim 7 and dependent claim 8, the prior art does not indicate a shield that is snap-fit ring.

Claims 11-16 and 28-34 are allowed. The following is a statement of reasons for the indication of allowable subject matter: In regards to independent claims 11 and 16, the prior art does not disclose a stator having a coil in which the stator has a cut-out section to receive the coil and that the coil is suspended in the cut-out section of the stator. In regards to claims 12 –15 are allowable for being dependent to allowable independent claim 11. In regards to independent claims 28, prior art does not disclose a shield that is comprises of a cup shape that extends around the proximal end of the magnet. In regards to independent claim 31, the prior art does not indicate a shield that is snap-fit ring. In regards to claims 29-30 are allowable for being dependent to allowable independent claim 28. In regards to claim 32-34 are allowable for being dependent to allowable independent claim 31.

Response to Arguments

Applicant's arguments with respect to claims 1-16 and 28-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

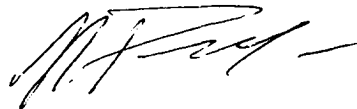
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Heba Y. Elkassabgi
July 22, 2003



Nicholas Ponomarenko
Primary Examiner
Technology Center 2800